



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,607	11/21/2000	Marvin T. Ling	2817-A-19	1103

7590

04/02/2004

CAHILL, SUTTON & THOMAS P.L.C.  
ATTN: Charles R. Hoffman  
155 Park One  
2141 E. Highland Avenue  
Phoenix, AZ 85016

EXAMINER

BRINICH, STEPHEN M

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 04/02/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.



**UNITED STATES DEPARTMENT OF COMMERCE**

**U.S. Patent and Trademark Office**

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

EXAMINER
----------

ART UNIT	PAPER
----------	-------

16

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

**Office Action Summary**

Application No.

09/717,607

Applicant(s)

LING ET AL.

Examiner

Stephen M Brinich

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,4-23 and 25 is/are allowed.
- 6) ☒ Claim(s) 1,3,24,26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2624

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3, 24 & 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Roye.

Re claims 1, 3, 24 & 26-27, Roye discloses (column 2, line 41 - column 3, line 39) an arrangement for forming a digital representation of an image composed of runlength data (column 2, line 46) is processed. In this processing of image runlength data, a set of "slices" is generated and an object-grabbing operation is performed on this set (column 2, lines 41-52), trivial gaps ("noise images") are separated from significant information ("essential images"), the significant information is marked for retention while the trivial gaps are discarded, and a reduced noise version of the image is reconstructed containing only the former.

Re claims 24-27, an implementation of the Roye system using a processor running a stored program (Appendix A) is disclosed.

***Allowable Subject Matter***

3. Claims 2, 4-23, & 25 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:

Art Unit: 2624

Re claims 2 & 25, the art or record does not teach or suggest the recited AND operation between the data portion and the digital representation.

Re claims 4-5 & 22-23 (and dependent claims 6-21), the art of record does not teach or suggest the recited arrangement of determining a line skew angle in relationship to objects determined to be representative of essential image data.

***Response to Arguments***

5. Applicant's arguments filed 20 January 2004 have been fully considered but they are not persuasive.

Applicant argues (Paper #15: page 22, line 10 - page 24, line 16; page 26, line 14 - page 27, line 3; page 28, line 13 - page 29, line 17) that the data objects and noise objects of the present invention are composed of dark pixels, and that the gaps detected and discarded by Roye (composed of light pixels) are therefore not noise objects.

However, the language of the present claims does not restrict the recited "objects" in this manner. While Applicant notes (Paper #15: page 22, lines 10-18) that the present specification describes "objects" as being "built from slices in the runlength data obtained by scanning a dark (visible) image" (emphasis in original), it is not clear that Applicant has defined the term "object" as used in the present claims in such

Art Unit: 2624

a way that every pixel in every object must be a dark pixel, or that every object must contain at least one dark pixel.

Applicant argues (Paper #15: page 25, line 13 - page 26, line 13; page 27, line 4 - page 30, line 9) that Roye does not teach or disclose the marking of data objects that will be used in document reconstruction, but instead reconstructs a document from all grabbed data objects.

This argument ultimately depends upon the previous argument. Roye (column 2, lines 65-66) clearly does exclude trivial gaps (read in the present rejection on the recited "noise images") and (column 3, lines 1-39) clearly does mark (by list inclusion) the data objects that will be used in document reconstruction. Applicant's assertion that Roye reconstructs a document from all grabbed data objects depends upon Applicant's description of the trivial gaps ("noise images") as non-"objects". As noted above, the language of the present claims does not require such an interpretation, and the specification does not appear to define the "objects" of the claim language in a way that requires such an interpretation.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen


Art Unit: 2624

M. Brinich at 703-305-4390. The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2600 Customer Service center at 703-306-0377.

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 703-308-7452.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 703-872-9306.

  
Stephen M Brinich  
Examiner  
Art Unit 2624

smb  
April 1, 2004